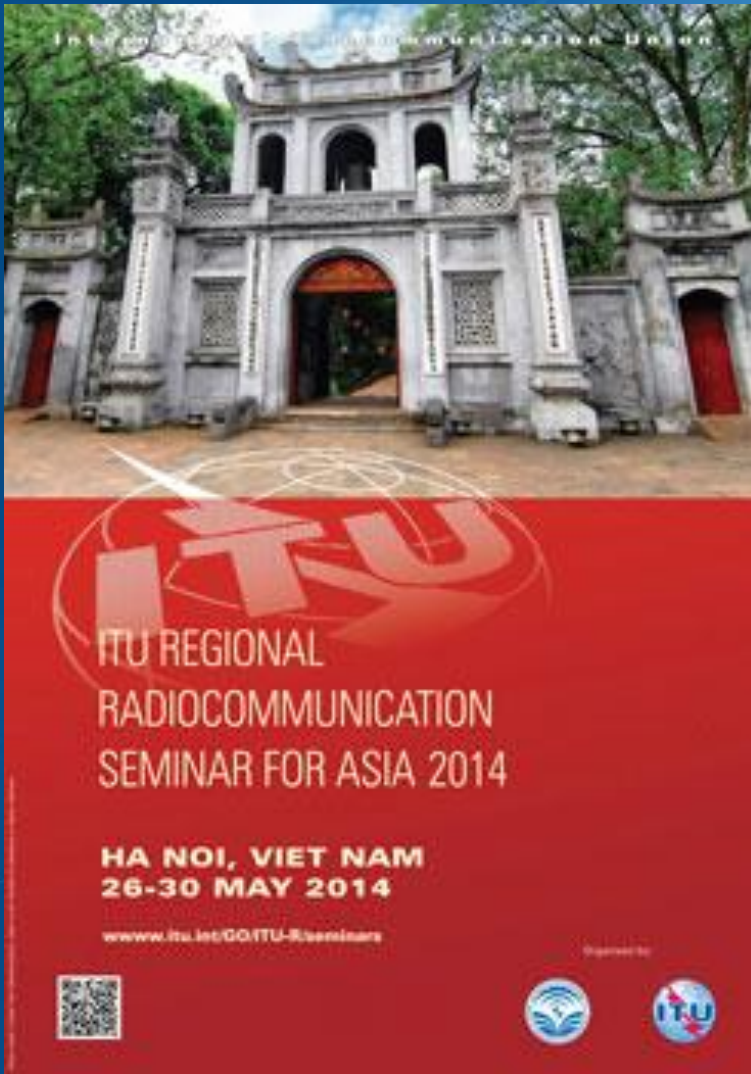


Terrestrial Workshop on the Preparation of Notices for Fixed and Mobile Services





ITU REGIONAL
RADIOCOMMUNICATION
SEMINAR FOR ASIA 2014

HA NOI, VIET NAM
26-30 MAY 2014

www.itu.int/GO/ITU-R/seminars

Organized by



Sujiva Pinnagoda
pinnagoda@itu.int

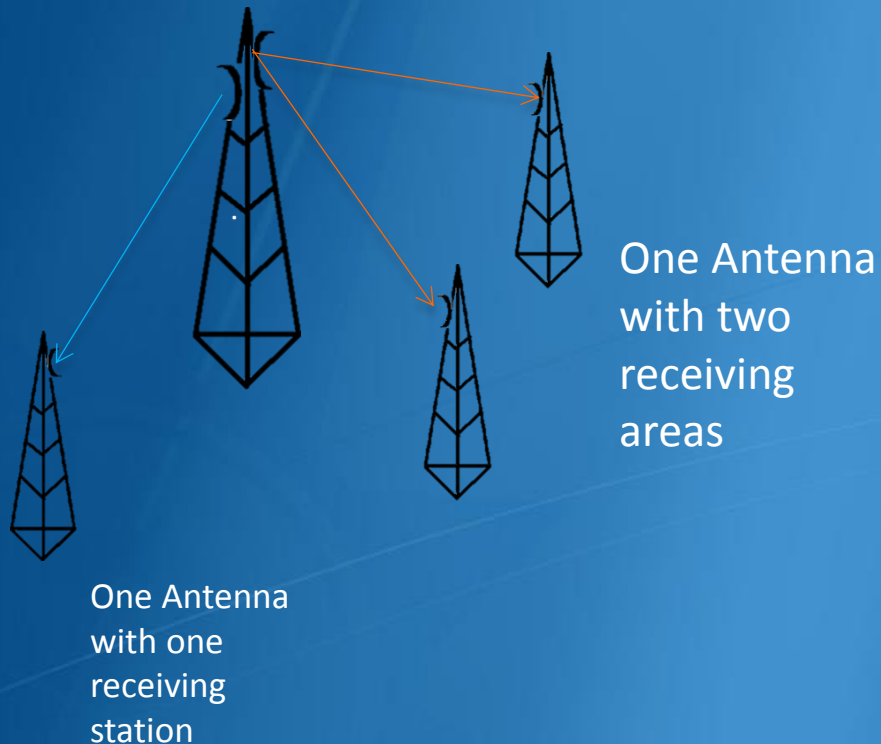
Overview of the Notification workshop on Fixed and Mobile Services

- General guidelines for Fixed and Mobile Services
- Reference documents for notification
- Exercises

General guidelines on the notification process: Fixed and Mobile Services

- Each frequency assignment needs to be uniquely identified;
- Identifying elements for fixed or mobile notices:
 - Frequency, geographical coordinates, class of station, Designation of emission and operating hours;
 - Unique identification code given by the administration.
- These identifying elements enable administrations to submit, at any time, changes to a previously submitted notice;
- A new notice having identical identifying elements of a previously notified frequency assignment will replace it;
- Each notification shall be complete and validated before submitting to the Bureau;
- BR Assign ID and site name are NOT identifying elements but they could be notified in the remarks field, for information;

General guidelines on the notification process: Fixed and Mobile Services



How to notify a transmitting station with several links?

- All the transmitting links emerging from the same transmitter (same identifying elements) shall be notified in **one** notice.

ONE Notice

General guidelines on the notification process: Fixed and Mobile Services

- Call sign or station Identification is mandatory for:
 - Fixed service in the bands below 28 MHz;
 - Safety services (aeronautical, maritime, etc.);
 - Call Sign if provided shall be in conformity with the Article 19 of RR and Appendix 42 to RR;
 - Article 19 Section III – Formation of call sign for the different types of stations.
- Assigned frequencies that fall within bands shared on an equal basis with space services:
 - The following data items are mandatory:
 - Elevation angle;
 - Antenna height;
 - Altitude of site above sea level;
 - Polarization.
 - The radiated power and maximum antenna gain shall be notified in isotropical values.

Reference documents for notification

- Guidelines and examples of different notice types;

<http://www.itu.int/en/ITU-R/terrestrial/tpr/Pages/Notification.aspx>

- Preface to the BR IFIC;

<http://www.itu.int/en/ITU-R/terrestrial/brific/Pages/default.aspx>



- Radio Regulations.



Exercises

● FXM 01: Fixed service (point-to-point)

Prepare an electronic notice of frequency 42.2 MHz used for the operation of fixed link based on the information below, for its recording in the Master Register.

To prepare this notice we will use “New Notice” functionality of TerRaNotices and we will select CHN as the notifying administration.

Class of Emission	F3E
Bandwidth	40 kHz
Transmitting antenna site name	TAIPEI
Coordinates of the transmitting antenna site	121° 31'00"E - 25° 06'00"N
Nature of service	Preface Chapter IV, Section 7
Date of bringing into use	Not earlier than 3 months
Address code	Preface Chapter IV, Section 3
Antenna	
Antenna directivity	Directional
Beamwidth	90°
Azimuth of maximum radiation	176°
Effective radiated power	20 dBW
Power delivered to the antenna	17 dBW
Maximum Gain relative to a half wave dipole	3 dB
Name of the location of the receiving station	WULEI
Coordinates of the receiving station	121° 32'00"E - 24° 51'00"N

Exercises

Class of Emission	D7W
Bandwidth	40 MHz
Transmitting antenna site name	PASTEUR
Coordinates of the transmitting antenna site	106° 41'45"E - 10° 46'51"N
Altitude of site above sea level	6 m
Date of bringing into use	Not earlier than 3 years
Antenna 1	
Height of the Antenna above ground level*	64 m
Antenna directivity	Directional
Azimuth of maximum radiation	36.6°
Beamwidth	0.1°
Polarization	Vertical
Elevation angle	-0.1°
Maximum antenna gain relative to isotropic antenna	39.7 dBi
Equivalent isotropically radiated power	39.7 dBW
Power delivered to the antenna	0 dBW
Name of the location of the receiving station	Bienhoa
Coordinates of the receiving station	106° 49'46"E - 10° 57'24"N
Antenna 2	
Height of the Antenna above ground level*	100 m
Antenna directivity	Directional
Azimuth of maximum radiation	344.7°
Beamwidth	0.1°
Polarization	Horizontal
Elevation angle*	0°
Maximum antenna gain relative to isotropic antenna	46 dBi
Equivalent isotropically radiated power	46 dBW
Power delivered to the antenna	0 dBW
Name of the location of the receiving station	Songbe
Coordinates of the receiving station	106° 37'00"E - 11° 03'30"N

● FXM 02: Fixed service (Point-to-Multipoint) in shared bands

Prepare an electronic notice of frequency 6.960 GHz, which falls within the bands shared on equal basis with the space services, used for the operation of two fixed links based on the information below, for its recording in the Master Register.

The two links are originating from the same transmitting station associated with two antennas.

To prepare this notice we will use the "Wizard" functionality of TerRaNotices and the functionality of TerRaNotices to add many antennas to a single notice. And we will select Viet Nam as the notifying administration.

As the assigned frequency falls within the bands shared on equal basis with space services, the following fields are mandatory: Altitude of site above sea level, Height of Antenna above ground level, Elevation angle and Polarization.

Exercises

● FXM 03: Land mobile service (point-to-area/area-to-point)

1/ Prepare an electronic notice file of frequency 153.000 MHz assigned to a Base station having a circular receiving area of a radius of 30 km, for its recording in the Master Register.

Bandwidth	36 kHz
Class of emission	F3E
Transmitting antenna site name	SAKRAND
Location of transmitting station	68° 20'00"E - 26° 06'00"N
Effective radiated power	17.8 dBW
Antenna directivity	Omnidirectional

2/Prepare an electronic notice file of frequency 153.000 MHz assigned to the associated Receiving Mobile station of the above Base station, for its recording in the Master Register.

Bandwidth	36 kHz
Class of emission	F3E
Name of the location of the receiving station	SAKRAND
Coordinates of the receiving station	68° 20'00"E - 26° 06'00"N
Effective radiated power	14 dBW
Antenna directivity	Omnidirectional

To prepare these notices we will first use "New Notice" functionality of TerRaNotices with PAK as the notifying administration and then we will use "Insert new notice" functionality of TerRaNotices. This functionality enables to have more than one notice in a file.

Exercises

● FXM 04: Maritime mobile Service (point-to-area)

Prepare an electronic notice, for the recording in the Master Register of frequency 161.800 MHz assigned to a coast station open to public correspondence situated in Korea (KOR) having a circular receiving area of a radius of 30 km.

For coast stations, Call sign or Station identification is mandatory. Station identification can be composed of any printable characters (max. 20). However, if Call sign is notified then it shall be in conformity with the provisions of Article 19 and Appendix 42.

To prepare this notice we will use “New Notice” functionality of TerRaNotices and we will select KOR as the notifying administration.

Bandwidth	16 kHz
Class of emission	F3EJN
Transmitting antenna site name	Jeonbuk Miryong dong
Coordinates of the transmitting antenna site	126° 41'08"E - 35° 57'20"N
Power delivered to the antenna	14 dBW
Effective radiated power	17 dBW
Maximum Gain relative to a half wave dipole	3 dB
Call Sign	DSA70
Antenna directivity	Omnidirectional

Exercises

● FXM 05: Typical transmitting station

Prepare an electronic notice, for the recording in the Master Register of frequency 927.8 MHz used by several base stations in your country using the information below.

Frequency assignments having the same technical characteristics operating within a given area can be notified in a single notice as a typical transmitting station under (RR.11.17). This provision does not apply to all service types (see RR 11.18-11.21B)

To prepare this notice we will use the “Wizard” functionality of TerRaNotices.

Necessary Bandwidth	200 kHz
Class of emission	F3E
Transmitting geographical area	Enter the country code to notify
Power to the antenna	14.9 dBW
Radiated Power	14.9 dBW

Exercises

● **FXM 06: Modifying a frequency assignment**

Prepare an electronic notice to modify a frequency assignment which is already recorded in the Master register from your country.

For this exercise, we will select Japan as the notifying administration, and Unique identification code given by Administration T12FB11DEC/ADD070539 in order to Modify the Assigned Frequency 154.725 MHz to 156.325 MHz

To prepare this notice we will use “Open a Notice from the database ” functionality of TerRaNotices.

● **FXM 07: Validating and identifying errors of a Frequency assignment notice**

Validate and identify the errors of the electronic notice file “FXM07_with error.txt”.

To Validate and identify errors of a notice file, we will use “Open file” and “Validate Notice” functionalities of TerRaNotices.

Any questions?